What is claimed is:

1. An ejector cycle comprising:

a compressor for compressing and discharging refrigerant;

a high-pressure heat exchanger for radiating heat of high-pressure refrigerant discharged from the compressor;

a low-pressure heat exchanger for evaporating low-pressure refrigerant after being decompressed;

an ejector including a nozzle for decompressing and expanding the high-pressure refrigerant flowing from the high-pressure heat exchanger, the ejector being disposed to suck refrigerant evaporated in the low-pressure heat exchanger by a high-speed refrigerant stream injected from the nozzle, and to increase pressure of refrigerant to be sucked into the compressor by converting expansion energy of refrigerant to pressure energy thereof;

a gas-liquid separator for separating refrigerant flowing from the ejector, into liquid refrigerant and gas refrigerant, the gas-liquid separator including a gas refrigerant outlet connected to a refrigerant suction side of the compressor and a liquid refrigerant outlet connected to a refrigerant inlet side of the low-pressure heat exchanger;

a pipe member defining a refrigerant passage, through which a refrigerant outlet side of the low-pressure heat exchanger is coupled to the refrigerant suction side of the compressor; and

a switching means provided in the refrigerant passage to open and close the refrigerant passage, wherein,

when the switching means opens the refrigerant passage, at

least refrigerant in the low-pressure heat exchanger is introduced to the refrigerant suction side of the compressor while bypassing the ejector.

2. The ejector cycle according to claim 1, wherein:

in a normal operation mode where the switching means closes the refrigerant passage, the refrigerant in the low-pressure heat exchanger is sucked into the ejector by the high-speed refrigerant steam jetted from the nozzle; and

in an oil return mode where the switching means opens the refrigerant passage, lubrication oil staying in the low-pressure heat exchanger is introduced to the compressor, together with the refrigerant flowing from the low-pressure heat exchanger to the refrigerant suction side of the compressor through the refrigerant passage.

3. The ejector cycle according to claim 1, wherein the switching means is disposed to open the refrigerant passage, when a refrigerant pressure at the refrigerant outlet side of the low-pressure heat exchanger becomes higher than a refrigerant pressure at the refrigerant suction side of the compressor, and when a pressure different between the refrigerant pressure at the refrigerant outlet side of the low-pressure heat exchanger and the refrigerant pressure at the refrigerant suction side of the compressor is larger than a predetermined value.

4. The ejector cycle according to claim 3, wherein the

switching means is a valve including a valve port for opening the refrigerant passage, a valve body for opening and closing the valve port, and a spring member for applying elastic force to the valve body in a direction for closing the valve port.

5. The ejector cycle according to claim 1, wherein the switching means is disposed to open the refrigerant passage when an ejector efficiency of the ejector becomes lower than a first predetermined value, and to close the refrigerant passage when the ejector efficiency of the ejector becomes higher than a second predetermined value.

6. The ejector cycle according to claim 5, wherein the first predetermined value is equal to the second predetermined value.

7. The ejector cycle according to claim 5, wherein the first predetermined value is different from the second predetermined value.

8. The ejector cycle according to claim 1, further compressing:

a pressure difference determining member for determining a pressure difference between the refrigerant outlet side of the low-pressure heat exchanger and the refrigerant suction side of the compressor; and

a control unit which controls operation of the switching means based on the pressure difference.

9. The ejector cycle according to claim 1, wherein the switching means is a check valve that is disposed to prevent a refrigerant flow from the refrigerant suction side of the compressor to the refrigerant outlet side of the low-pressure heat exchanger when the switching means opens the refrigerant passage.

10. The ejector cycle according to claim 1, further comprising

an internal heat exchanger disposed in the refrigerant passage, for performing heat exchange between the high-pressure refrigerant from the high-pressure heat exchanger and the refrigerant from the low-pressure heat exchanger.

11. The ejector cycle according to claim 1, further comprising:

a flow amount control unit, disposed upstream from the nozzle of the ejector, for controlling a flow amount of refrigerant flowing into the nozzle of the ejector.

12. The ejector cycle according to claim 1, wherein at least the pipe member, the switching means and the gas-liquid separator are integrated to form an integrated unit.

13. The ejector cycle according to claim 1, wherein the refrigerant is one of carbon dioxide, hydro carbon and fleon.

14. An ejector cycle comprising:

a compressor for compressing and discharging refrigerant;

a high-pressure heat exchanger for radiating heat of high-pressure refrigerant discharged from the compressor;

a low-pressure heat exchanger for evaporating low-pressure refrigerant after being decompressed;

an ejector including a nozzle for decompressing and expanding the high-pressure refrigerant flowing from the high-pressure heat exchanger, the ejector being disposed to suck refrigerant evaporated in the low-pressure heat exchanger by a high-speed refrigerant stream injected from the nozzle, and to increase pressure of refrigerant to be sucked into the compressor by converting expansion energy of refrigerant to pressure energy thereof;

a gas-liquid separator for separating refrigerant flowing from the ejector, into liquid refrigerant and gas refrigerant, the gas-liquid separator including a gas refrigerant outlet connected to a refrigerant suction side of the compressor and a liquid refrigerant outlet connected to a refrigerant inlet side of the low-pressure heat exchanger;

a pipe member defining a refrigerant passage, through which refrigerant discharged from the compressor is introduced toward the low-pressure heat exchanger while bypassing the nozzle of the ejector; and

a switching means provided in the refrigerant passage to open and close the refrigerant passage, wherein,

when the switching means opens the refrigerant passage, at

least refrigerant in the low-pressure heat exchanger is introduced to the refrigerant suction side of the compressor while bypassing the nozzle of the ejector.

15. The ejector cycle according to claim 14, further compressing

a decompression device, disposed in the refrigerant passage, for decompressing refrigerant discharged from the compressor, wherein:

in a normal operation mode, the switching means closes the refrigerant passage, and the high-pressure refrigerant from the high-pressure heat exchanger is decompressed in the nozzle of the ejector while sucking refrigerant in the evaporator; and

in an oil return mode, the switching means opens the refrigerant passage, and the high-pressure refrigerant discharged from the compressor is decompressed in the decompression device and flows through the low-pressure heat exchanger.

16. The ejector cycle according to claim 14, wherein the switching means is disposed to open the refrigerant passage, when a refrigerant pressure at the refrigerant outlet side of the low-pressure heat exchanger becomes higher than a refrigerant pressure at the refrigerant suction side of the compressor, and when a pressure different between the refrigerant pressure at the refrigerant outlet side of the low-pressure heat exchanger and the refrigerant pressure at the refrigerant suction side of the compressor is larger than a predetermined value.

17. The ejector cycle according to claim 14, wherein the switching means is disposed to open the refrigerant passage when an ejector efficiency of the ejector is lower than a predetermined value.